OPENCAPE
Creating Regional Broadband Opportunities
PO Box 762 | West Barnstable, MA | 02668-1599
(888) 253-2561 V | (508) 375-4162 F linfo@opencape.com | www.opencape.com

November 16, 2009

VIA ELECTRONIC COMMENT FILING SYSTEM (ECFS)

Ms. Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Re: Exparte Communication, 47 C.F.R. 1.1206
In re National Broadband Plan for Our Future, GN 09-51

Dear Ms. Dortch:

On November 12, 2009, representatives of the OpenCape Corporation and RCN Metro Optical Networks met with Blair Levin, David Isenberg, Tom Koutsky, and others of the Federal Communications Commission Broadband Planning Task Force. The purpose of the meeting was to discuss the OpenCape Middle Mile project and its potential for replication within a national broadband plan. Participants on behalf of the non-profit OpenCape Corporation were Daniel Gallagher, CIO of Cape Cod Community College and President of OpenCape Corporation, Art Gaylord, Director of Computer and Information Services at Woods Hole Oceanographic Institution and Vice-Chair of OpenCape Corporation, Teresa Martin, President of Capeyes and Vice-Chair of OpenCape Corporation, Gary Delius, MIS Director of the Town of Truro and Treasurer of OpenCape Corporation. Ms. Maura Mahoney, Vice President of RCN Metro Optical Networks also participated.

OpenCape provided a presentation to David Isenberg, Tom Koutsky, and other FCC personnel and discussed important concepts of comprehensive middle mile solutions, addressing multiple sectors through a single physical layer, building a sustainable business model through public ownership and private operation, creating middle mile infrastructure that will both expand readily and support the development of applications, and moving backhaul and middle mile infrastructure close to subscribers as an enabling strategy for last mile services.

The group met with and continued its conversation with Blair Levin for approximately one hour.

The presentation slides, background document provided to attendees, and letters associated with discussions related to crossing the Cape Cod Canal are attached.

Pursuant to Commission rule, please include a copy of this notice in the record for the proceeding noted above.

Sincerely,

/s/Daniel Gallagher

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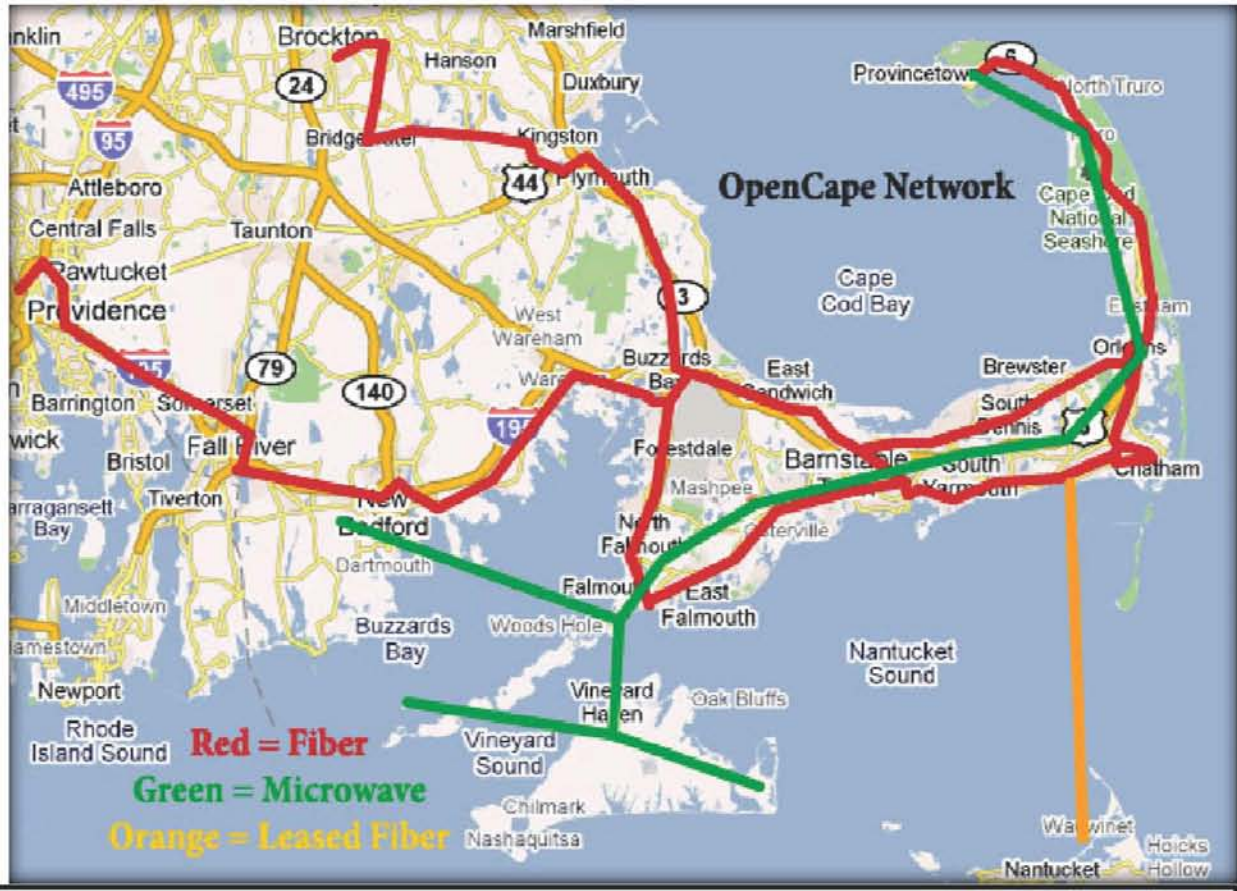
Comprehensive Regional Middle Mile Project

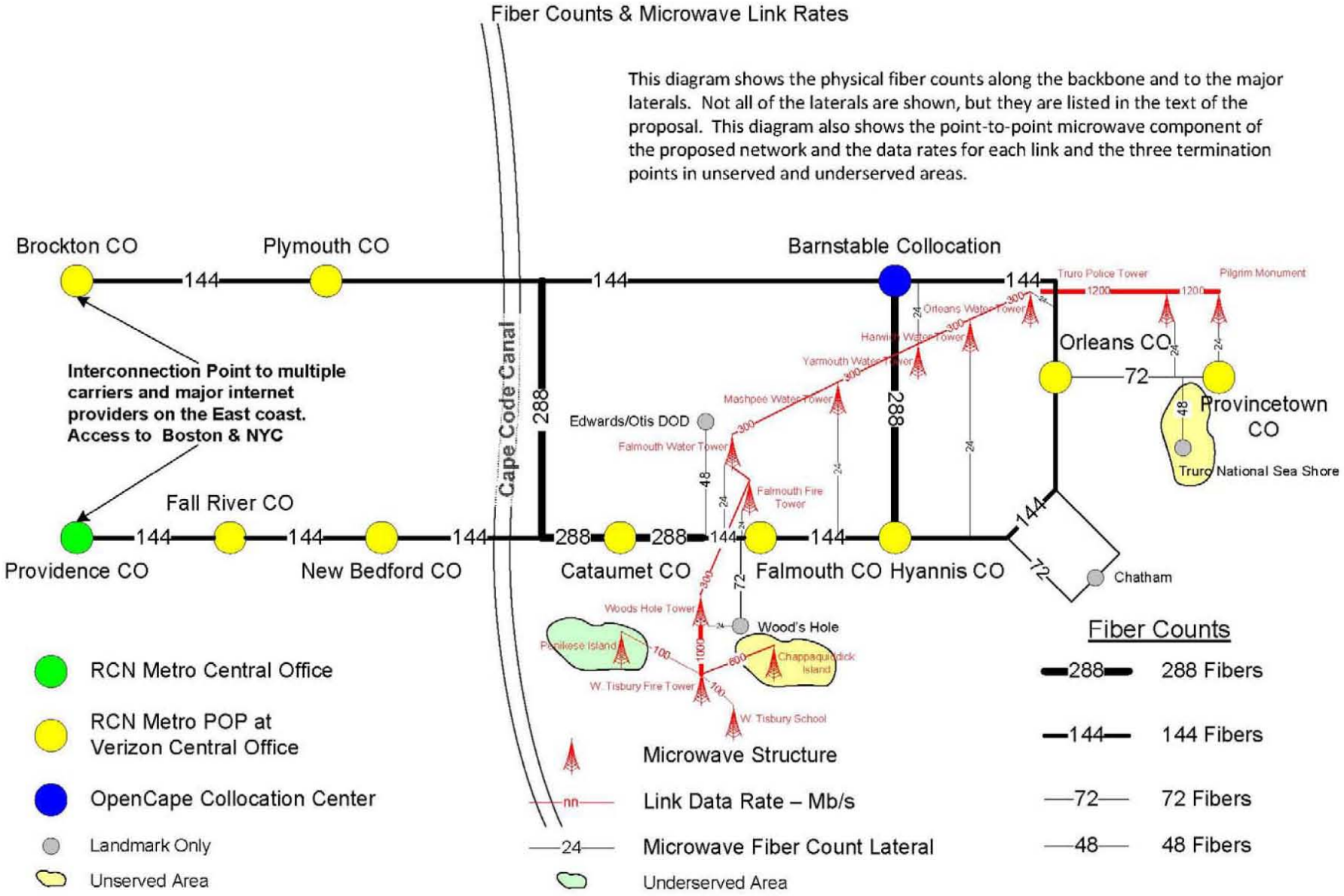
- 350 Miles Fiber Optic
  - **Includes ~ 65 Anchor Laterals**
- Microwave
  - Outer Cape Loop
  - Public Safety/Backup
- Regional Collocation and Data Center



Estimated Cost: $40M

-$32M NTIA BTOP Application
- 20% Match
  - $5M MA Bond, $2M RCN, $1M Barnstable County

OpenCape Proposed
Fiber & Microwave Middle Mile Schematic



Future Vision: Cape Cod 2015

OpenCape as Underpinning Technology

Opportunity:	100% Availability of Broadband on the Cape and Islands
Capacity:	1Gbps Ethernet Symmetric Service Available to Businesses, Wavelengths and Dark Fiber options
Mobility:	Mobility Network that supports bandwidth intensive applications Public Safety 800Mhz system for vehicles WiMax/LTE 4G systems with adequate backhaul
Efficiency:	Government, education and healthcare Regional Umbrella Services Model.
Survivability:	A robust data network and regional collocation center that can survive and quickly recover fully and rapidly from a hurricane

Concept to Address Regional Need

- **Middle Mile Project**
  - Serve Regional Anchor Institutions
    - Community College (Internet and link campuses)
    - SE Mass Higher Ed institutions (5 Colleges/Univ of CONNECT)
    - HealthCare Network (6 hospitals)
    - Regional Wide Area Network
      - School Districts (Regional LMS, Data Center, Internet 2)
      - Municipals (Regional GIS, Munis, Assessor, Phones)
      - Libraries (CLAMS library network and public access)
  - Public Safety
    - State EOPSS network, CGIS access
    - County 800Mhz redundant trunk
    - Basis for mobile police/fire network
    - All regional evacuation shelters connected
  - State
    - Smart Highways
    - State Network
  - Federal
    - Homeland Security Dedicated Fiber (Otis to Quonsett Point, FAA, WHOI)

Concept to Address Regional Need (cont.)

- **Middle Mile Project**
  - Commercial Service
    - OPERATOR to offer commercial lit and dark fiber service
      - Gov/Non-profit/Profit rates
    - OPERATOR to offer collocation services in 2000sqft. Facility
      - Gov/Non-profit/Profit rates
    - Last Mile Providers
      - Capital investment offsets barrier to entry
        - Pro-rated backhaul charges
          - No local loop/distance charge
        - Interconnection “Splice Point” in unserved/underserved
          - Unserved or underserved census blocks
            - Representative of region
            - No or limited cable/dsl
            - Cellular shadows
            - Government building within blocks

Points of Interest/Discussion

- **Comprehensive Middle Mile - (Between the Metro and the Rural)**
  - Public and Commercial
  - Unserved and Anchors
  - Telecom and Smart Grid

- **Sustainable Business Model - (Public Ownership/Private Operation)**
  - OpenCape Corp. 501(c)(3) as applicant and OWNER of physical plant
    - Aid region in exploiting the capabilities of the network
  - RCN Metro as LICENSED OPERATOR
    - Contribute to Match
    - Share success – percentage of gross revenue to OpenCape
    - Build and operate the network and collocation center to its benefit
  - Open Access Mechanisms (Fiber Reserves)

- **Building Blocks** – (Expand Network and Increase Use)
  - Fiber to Martha's Vineyard
  - Replicate OpenCape comprehensive solution on South Coast
  - Aid Anchors in developing applications
    - GIS, LMS, Phones, Etc.

Points of Interest/Discussion (Cont.)

- **OpenCape Model – (Applicable in many suburban, mixed density population regions)**
  - A balance of high demand anchor institutions and residential/business use makes a sustainable model possible.

- **Multi-vendor, open access backbone – (Enabler for development)**
  - highway/railroad model - Internet as highway goes back to early 80s
  - overbuilding initial capacity is good
    - changes the model from one of scarcity where resources are priced high and rationed to one were resources are plentiful and use is encouraged.

- **Backbone Proximity – (Close to the subscribers)**
  - Has moved closer to Cape but still only for commodity level services. Advanced options (very high speeds, wavelengths, dark fiber) are still out of reach.
  - Short laterals (i.e. low connection cost) critical to local gov/school/small businesses
  - Backbone access points in telco COs can be a good starting point

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OpenCape Backgrounder

The OpenCape concept addresses the need for a regional communications system to enhance education, research, and economic development, and provide for a reliable and redundant public safety communications network. The non-profit 501(c)(3) OpenCape Corporation was formed to conduct analysis, develop plans, and engineer solutions. Approximately $250,000 in seed funding was obtained to support the efforts of a regionally representative Board of Directors that committed a great deal of time and energy toward devising a solution for the region. The OpenCape Corporation is collaborating with regional, state, and federal entities to ensure a comprehensive and coherent solution is delivered that will serve the telecommunications needs of the 500,000 citizens and 62,000 businesses of its proposed service area for the next 50 years.

Need & Vision

Economic. Cape Cod and the Islands need ubiquitous, reliable, redundant, and cost competitive telecommunications infrastructure to support economic diversification in a region that has a currently unsustainable economy. The region seeks to create the necessary underpinning technology infrastructure to support the growth of its innovation sector and its entrepreneurial culture. In addition, the OpenCape network will support expansion of services into the communities of the South Coast where unemployment in Fall River and New Bedford is over 15 percent.

Cape Cod and the Islands have seen limited investment in middle mile infrastructure largely because the population density is insufficient to deliver a return on investment consistent with traditional provider models and share holder demands. The proprietary nature and closed access of the limited fiber optics in the region create a further barrier to entry for last mile providers. The result is a lack of competition that in turn results in a lack of availability of broadband in low density areas, inadequate capacity, and a high cost of service for consumers and anchor institutions. The infusion of government capital offsets the greatest barrier to entry for last mile providers regardless of size or technology employed. The OpenCape business plan and partnership model ensures an open access and competitive model will be sustained over time.

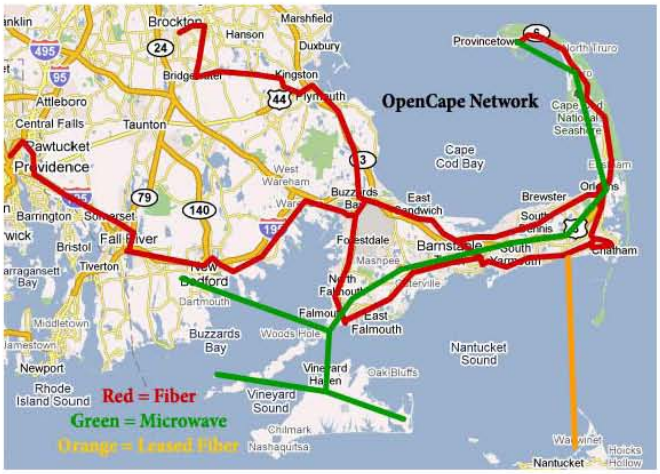
Public safety. The Cape and Islands region requires the robust and redundant communications network of OpenCape to support public safety in both day to day operations and in crisis. OpenCape will link public safety officials within a wide area network and support a 700Mhz wireless mobility network for vehicles in basic functions such as communicating with Cape Cod Hospital during a patient run from Provincetown. OpenCape will also support much broader community needs for more robust public safety communications during frequent storms and potential hurricanes.

Anchor Institutions. The many anchor institutions of the region, such as the world-class research institutes of Woods Hole, regional medical facilities, public colleges, school districts, municipalities, and libraries have participated fully in the definition of need and the development of solutions. Barnstable County has partnered with OpenCape and identified the network's construction as a top priority for meeting goals such as the creation of a regional umbrella service model for towns and school districts in the region. OpenCape's ongoing interactions with executive departments of the state government are also ensuring that the Commonwealth's direct interest in building a statewide network are addressed.

Regional Commitment

The OpenCape concept is widely supported throughout the region and the state. One hundred percent of the towns and school districts on Cape Cod and the Islands have submitted letters of support for the effort. Seed funding was provided by Barnstable County, the John Adams Innovation Institute, the Massachusetts Broadband Institute, Woods Hole Oceanographic Institution, and Cape Cod Community College. The Cape legislative delegation successfully increased the Broadband Bill Incentive Fund to $40 million within the Massachusetts legislature to create a resource for construction of the network. The federal legislative delegation has provided letters of support, as well as essential liaison with federal agencies.

The OpenCape Network



The OpenCape proposal consists of a core fiber backbone on Cape Cod with extensions to two major regional network connection centers in Providence and Brockton, numerous fiber optic laterals extending off of the backbone, a high capacity optical transport system, a microwave radio overlay, and a regional collocation center. All of these elements combine to provide a robust, high capacity communications infrastructure. Fiber optic based services will range from traditional bandwidth based offerings to dedicated wavelengths of light to dark fiber leases. The OpenCape collocation center will serve as the focal point of network operations and provide leased collocation space for public and private organizations in the region.

OpenCape will connect over 70 anchor institutions to the network using laterals as part of its initial build-out. Highlights of these include twelve emergency shelters (schools), thirty libraries, five colleges, six academic research facilities, and eighteen town or public safety buildings. The OpenCape path also permits many additional anchor institutions the ability to rapidly obtain service from the network including seven hospitals, two additional higher education institutions, eight additional libraries, ten county, state or federal institutions, five commercial/industrial centers, and potentially over 270 public safety and educational facilities.

The cost of commercial middle mile service will be significantly lower than is currently offered in the region, and in addition, non-profits and government entities will receive a deep discount for all network services.

OpenCape Funding

The total project cost is $40 million. OpenCape Corporation's $32 million Broadband Technology Opportunities Program" (BTOP) grant application is in Step 2 - Due Diligence within the National Telecommunications and Information Administration (NTIA). NTIA is evaluating the grant application under its authority within the American Recovery and Reinvestment Act (ARRA) of 2009. OpenCape has secured commitments for $8 million in matching funds from the Massachusetts Broadband Institute ($5 million), RCN Metro Optical Networks ($2 million), and Barnstable County ($1 million).

Sustaining Business Model

OpenCape Corporation will own the physical assets of the network, share in the success of its licensed private operator, and use its revenues to support further network expansion and application development for the benefit of the region. In July 2009, OpenCape's research and analysis led it to identify RCN Metro Optical Networks (RCN) as its primary operating partner through a competitive process. RCN has a proven track record in middle mile construction and operation. OpenCape has chosen to combine its regional understanding and mission with a partner's existing capabilities, drawing on the strengths of an established middle mile operator.

Immediate and Long Term Jobs Impact

The OpenCape project will create 233 jobs in the equipment, construction and manufacturing sectors and an additional 194 indirect jobs. In addition to these direct and indirect jobs associated with the construction and operation of the network, there is the greater long term impact on the broader economy. OpenCape is an essential element of regional economic diversification planning by Barnstable County and business organizations.

Congress of the United States

Washington, DC 20510

March 12, 2009

Colonel Philip T. Feir
District Engineer Commander
New England District
U.S. Army Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742-2761

Dear Colonel Feir:

We write to bring to your attention a concern for residents of Cape Cod with respect to the redundancy of communications infrastructure. As the most vulnerable region in New England to natural disaster, it is essential that the Cape and Islands are equipped with a robust and redundant communications system that could ultimately save lives.

In order to bridge the digital divide and improve telecommunications capacity on Cape Cod and the Islands, it is imperative that the most appropriate and efficient method for telecommunications delivery be identified. This will require an assessment of how telecommunications cables should cross the canal that separates the majority of the peninsula from the mainland. As the organization responsible for the oversight and maintenance of the Cape Cod Canal, it would be helpful if you would provide our offices with the following information:

1) a complete listing of all public utility total and available capacity for crossing the canal in conduits on the Bourne, Sagamore, and railroad bridges;
2) existing lease contracts for conduits currently spanning the Canal, including contractual start and end dates and all leasing costs associated with the contracts;
3) any information you have available on seabed canal crossings in the Cape Cod Canal;
4) and, current seabed rights of way that could potentially be used for telecommunications cables to cross the canal.

Thank you in advance for your help as we work to enhance opportunities and services for the residents of the Cape and Islands in Southeastern Massachusetts. Please don't hesitate to contact Brian Rice at 202-224-2742, John Dutton at 202-224-4543, or Chris Adams at 508-771-0666 if you have any questions.

Sincerely,

John F. Kerry
U.S. Senator

Edward M. Kennedy
U.S. Senator

Bill Delahunt
U.S. Representative

5-09

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO ATTENTION OF

March 31, 2009

Real Estate Division
Conveyancing Branch

Honorable Edward M. Kennedy
United States Senate
317 Russell Senate Office Building
Washington, DC 20510-2101

Honorable John F. Kerry
United States Senate
218 Russell Senate Office Building
Washington, DC 20510

Honorable William D. Delahunt
House of Representatives
2454 Rayburn House Office Building
Washington, DC 20515-2110

Dear Senator Kennedy, Senator Kerry, and Mr. Delahunt:

I am writing in response to your March 12, 2009 letter concerning telecommunications cables crossing the Cape Cod Canal. Your letter asked for information on four items:

1) *A complete listing of all public utility total and available capacity for crossing the canal in conduits on the Bourne, Sagamore, and railroad bridges.* We have not conducted any engineering or feasibility studies to determine the available capacity to support additional utility conduits on the bridges. The current public utility users are noted in item number 2 below. The Corps does not know the availability of space within the existing conduits--the Corps grants permission to attach conduits to the bridge structure; however, the capacity within each individual conduit is determined by the utility company. Although not listed in item 2 below, Verizon is an additional utility currently utilizing both the Bourne and the Sagamore bridges for telecommunications conduits. New England Telephone and Telegraph, Verizon's predecessor in interest, was issued two revocable permits in 1935 (imposing an annual charge of $25 per permit). These permits were revoked in April 2008 after lengthy negotiations with Verizon failed to resolve the fair market rental value. This matter was referred to the Department of Justice earlier this year for resolution. At this time the Department of Justice is

discussing this matter with Verizon. There may be space available within Verizon's conduits. Verizon currently has twenty-four conduits located on the bridges. Verizon subleases space to Comcast for their telecommunications cables. It may be possible that Verizon could accommodate additional utilities within their conduits.

2) *Existing lease contracts for conduits currently spanning the Canal, including contractual start and end dates and all leasing costs associated with the contracts.* The existing contracts are as follows:

a. License No. DACW33-3-95-26 to Harron Cablevision (now Comcast) for underground cables within the lands adjacent to canal waters and for the abutments at each bridge. A five-year license began 25 August 1995. The license was extended for an additional 5-year period and expired 24 August 2005. Rent for use of the lands and abutments was $375 for each 5-year period. It is our understanding that Comcast has an agreement with Verizon to use Verizon's conduits on the bridges. This license will be renegotiated with Comcast pending resolution of the Verizon matter.

b. License No. DACW33-3-98-46 to Media One (now Comcast) for an underground fiber optic cable within lands adjacent to canal waters and for the abutments at each bridge. A five-year license began 1 May 1998. The license was extended for an additional 5-year period and expired 31 October 2005. Rent for use of the lands and abutments was $300 semi-annually. It is our understanding that Comcast has an agreement with Verizon to use Verizon's conduits on the bridges. Similar to the previous license, the Corps will renegotiate with Comcast pending resolution of the Verizon matter.

c. Easement No. DA19-016-CIVENG-63-195 to Buzzards Bay Gas Company (now Keyspan/National Grid) for a gas transmission line over the Bourne bridge. The easement began 6 March 1963 and expires 5 March 2013. Rent for use of lands and the bridge was $500 for the term.

d. Easement No. DA19-016-CIVENG-65-256 to Buzzards Bay Gas Company (now Keyspan/National Grid) for a gas transmission line over the Sagamore bridge. The easement began 30 April 1965 and expires 29 April 2015. Rent for use of lands and the bridge was $500 for the term.

e. Easement No. DACW33-2-95-9 to Canal Electric (now Mirant) for a gas transmission line on lands adjacent to the Canal and then running under the canal. The easement began 1 June 1995 and expires 31 May 2025. Rent for use of uplands and lands under the Canal was $8,000 for the term (with an additional charge of $9,600 in administrative fees).

f. Easement No. DACW33-2-67-67 to New Bedford Gas and Edison Light Company (now Commonwealth Electric/ NStar) for the use of lands on either side

of the Canal for poles, towers, and appurtenances to support aerial power lines over the Canal. The easement began 5 January 1967 and expires 4 January 2017. Rent for use of the lands was $1,200 for the term.

g. Permit No. DA19-016-CIVENG-62-49 to New England Telephone (now Verizon) for a submarine telecommunications cable placed 5 feet below the canal seabed. The permit began 7 November 1961 and was for an indefinite term. Rent for use of the land was not charged. It is our understanding that the cable is no longer needed. We will pursue discussions with Verizon regarding this cable.

The Corps has several older outgrants. As these outgrants expire we are reappraising the interests to determine whether the government is receiving fair market value. Based on a recent appraisal for Verizon's use, the Corps determined that $1.75 per linear foot is the fair market rental value for telecommunications lines.

3) *Any information you have available on seabed canal crossings in the Cape Cod Canal.* As indicated in item 2e above, there is one 18" gas transmission line running under the Canal seabed. As indicated in item 2g above, there is one submarine cable across the west end of the Canal seabed from Stony Point Dike to Wings Neck.

4) *Current seabed rights of way that could potentially be used for telecommunications cables to cross the canal.* We are not aware that the utility users of the two existing seabed crossings (gas line and communications cable) have determined whether they could accommodate additional use by telecommunications cables. We have not conducted studies regarding issuing new rights of way to cross the seabed for telecommunications, gas, electric, or other utilities.

The Corps is willing to discuss new proposals to cross or utilize government lands and structures with any public utility company that wishes to provide service to Cape Cod.

I trust this information will be helpful to you. Thank you for your concern in this matter.

Sincerely,

Philip T. Feir
Colonel, Corps of Engineers
District Engineer

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June 23, 2009

Department of the Army
New England District, Corps of Engineers
ATTN: Colonel Philip T. Feir
695 Virginia Road
Concord, MA 01742-2751

Colonel Feir:

The OpenCape Corporation is a non-profit 501(c)(3) corporation seeking your assistance in increasing telecommunications capacity crossing the Cape Cod Canal.

OpenCape was formed to address the unmet broadband needs of Cape Cod and southeastern Massachusetts. The region lacks vital telecommunications capacity and core infrastructure. This infrastructure is necessary for the region and its businesses to compete and thrive in the 21st century.

OpenCape was formed to address this need by building capacity and creating a sustainable infrastructure organization. OpenCape Corporation intends to:

- Build capacity by establishing an open access fiber and wireless backhaul network spanning the entire Cape and connecting to core Internet backbones in Providence and Boston;
- Establish a regional datacenter;
- Oversee the ongoing maintenance and operations of this infrastructure via a contracted operator;
- Collaborate with regional organizations to help the public sector leverage the infrastructure for regional benefit.

The OpenCape Corporation was created from a grassroots effort to address the lack of regional telecommunications capacity. Regional organizations such as the Woods Hole Oceanographic Institution (WHOI), Cape Cod Community College (CCCC), UMass/Dartmouth, and the Cape Cod Technology Council (CCTC), along with education, municipal, and business leaders helped shape the original concept. OpenCape incorporated in March 2007 as a nonprofit corporation and received its 501(c)(3) status in December 2008.

To date, OpenCape Corporation has been funded by a $50,000 grant from the Barnstable County EDC, a $150,000 grant from the Massachusetts Technology Collaborative's John Adams Innovation Institute, a $50,000 Massachusetts Broadband Institute (MBI) grant, and in-kind donations from WHOI, CCCC, and UMass/Dartmouth. OpenCape is currently led by an all-volunteer Board of Directors, which represents a cross section of constituency base and regional geography.

In July, 2009 OpenCape Corporation, in partnership with a major telecommunications provider, will apply to the National Telecommunications and Information Agency (NTIA) under its authority to grant funds under the "Broadband Technology Opportunities Program" of the American Recovery and Reinvestment Act of 2009. The grant application will be in the amount of $33 million. The grant will fund the installation of approximately 225 miles of fiber optic cabling throughout the region, microwave links, and a collocation center on Cape Cod.

Crossing the Cape Cod Canal is a vital element of this project. For this reason I would like to ask your consideration of the following:

1. Licensing OpenCape Corporation for underground cables within lands adjacent to canal waters and for the abutments of the Bourne and Sagamore Bridges for a period of 25 years at a rate comparable to that of other existing licenses.
2. Licensing OpenCape Corporation to install two 4 to 6 inch public utility conduits with 3 separable inner-duct cells on the Bourne and Sagamore bridges for use by the OpenCape corporation and its assignees for a period of 25 years at a rate comparable to that of other existing licenses.
3. As an alternative, the potential for licensing OpenCape Corporation to directional bore underneath the Cape Cod Canal for the purposes of installing telecommunications conduit.

Any information you can provide me regarding an application process and a point of contact for discussion of these requests is greatly appreciated.

Sincerely,

Daniel J. Gallagher
President and Chairman